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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,941	12/30/1999	ELIEZER ROSENGAUS	KLAIP001C1	2963

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/474,941

Applicant(s)
ROSENGAUS et al

Examiner
Richard Rosenberger

Art Unit
2877



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 17, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 6, 9, 13-22, and 43-58 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 9, 13-22, and 43-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-6, 9, 11, 13- 22 and 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maraca et al (US 5,274,434) taken with Maraca et al (US 5,463,459) and Yamamoto et al (US 5,623,340), and also Levy (US 5,465,154),

Maraca et al('434) shows, in figure 22, a manufacturing system with a plurality of "job stations" (1502), inspection stations (1503) and the like. There is also a handling tool for moving wafers amongst the various stations.

Maraca et al ('434) shows that it is known to use a plurality of modular inspection units across the width of a integrated circuit manufacturing tool. In figure 17, the reference shows such a system which can scan the entire wafer in one pass; note column 10, lines 64-68, where this embodiment is described by "the full surface inspection of the product wafer 111 can be made by one scanning 510 by disposing two or more lines of microlenses 1301 in a zigzag arrangement as shown in FIG. 17." Note also Maraca et al ('459), figures 8, 15 and 16, and Yamamoto et al, figures 2 and 4, which also show this.

Maraca et al('434) teaches that the system of that patent can provide "real time inspection in mass production lines (column 2, line 57) and can be placed "in a transfer system between processing apparatuses" (column 2, line 62). Thus Maraca et al teaches placing the system in line. Such a system can be placed anywhere in such a manufacturing system which is convenient or where inspection is desired.

As noted in the instant specification, page 18, line 35 through page 19, line 10,, inspection systems for wafers using time delay integration are known in the art; using this known system for it known purpose would have been obvious. Placing the detection apparatus outside of the vacuum to observe the wafer though a window is known in the art, as shown by Levy, and would have thus been obvious.

When using multiple channels, as taught by Maraca et al, it would have been obvious to duplicate not only the optics, but the channel specific processing into a local processor associated with each channel, which using a master processor for control and processing which are not unique for each channel. This is taught by Yamamoto et al; note local processors 28A-28F and master processor 29.

Those of ordinary skill could make appropriate variants of the system of Maraca et al, choosing other known and appropriate detectors, other types of stations needed for the particular processing being used, etc.

3. The remarks filed 17 January 2002 argue that the art of record does not show a measuring system placed outside a vacuum environment that is contained within a wafer handling system. However, the art of record does show that it is known to place an optical measuring system outside of a treatment chamber of the like where it views the wafer through a window. There is no reason for those in the art to believe that such a known system would cease to work simple because the measuring system is viewing a wafer though a window in a wafer handling system rather than in some other arrangement. It would have been obvious to place an optical measuring system to view of wafer through a window in any situation in which such a test is usefully made.

The art of record suggests that such a measuring system can be placed in any convenient location within such a processing system. Maraca et al ('434) teaches that tests should be made at several different points throughout the processing (column 12, lines 37-46). Thus it would have been obvious to provide an arrangement in which the wafers are moved to a measuring station whenever such a test is required rather than duplicating measuring systems throughout the system with the associated costs.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory


action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
18 April 2002



Richard A. Rosenberger
Primary Examiner